

METHOD FOR PROFILING NEW VEHICLES AND IMPROVEMENTS

Background

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The present invention relates generally to product development, and more particularly, to a method of positioning a brand and profiling product attributes for an intended customer market. More specifically, the method concerns brand positioning and product profiling methods for personal and/or commercial use vehicles.

The primary goal of any durable goods manufacturer is to produce a product that is in demand by consumers. The purchasing decision of consumers, on the other hand, is influenced by many factors. These factors include: product cost, quality, convenience, design, safety, and prior brand or product experience, among other things. The marketing division of durable goods manufacturers are generally concerned with identifying product attributes and correlating them to consumer segments. Many organizations, however, lack an organized systematic method of positioning a brand or a product to meet identifiable attribute targets or objectives which are customer driven. It is, therefore, desirable to develop a marketing strategy which profiles brands or products according to identifiable customer-driven attributes. In this way, products or brands may be more closely correlated to customer expectations or desires than with previously known marketing processes.

Summary of the Invention

It is, therefore, one object of the present invention to provide an improved marketing strategy which incorporates a specific brand or product profile. It is a further object of the present invention to incorporate customer input into the brand or product profile.

One advantage of the present method is that it provides customer-driven products with consistent brand images and identifiable product attributes.

According to the present invention, the foregoing and other objects and advantages are attained by a method of developing product characteristics for a new automotive vehicle comprising the steps of: generating a plurality of vehicle attributes including usage experience attributes, driving experience attributes, and design attributes; classifying each of the attributes; generating a preferred vehicle brand position as a function of the vehicle attributes; and, generating target vehicle characteristics as a function of the vehicle attributes and the preferred vehicle brand position. In this manner, the target vehicle characteristics represent customer-driven objectives for each of the plurality of vehicle attributes.

Other objects and advantages of the invention will become apparent upon reading the following detailed description and appended claims, and upon reference to the accompanying drawings.

method is equally applicable to marketing strategies for any durable good.

Referring now to Figure 1, a market inquiry process 10 is generally shown. In the market inquiry process 10, various multiple information inputs 12 are used to provide various information to the market inquiry process 10. Multiple information inputs may, for example, be collected by various local marketing groups located in the countries or regions of the country that the vehicle may be marketed. Examples of information include current styles and trends of the group to which the product will be marketed. Multiple information inputs 12 is used as inputs to a brand management process 14.

Brand management process 14 includes identifying a brand through which the product will be marketed. A brand may, for example, be an existing nameplate used by a manufacturer. Brand management includes the process of inquiring as to whether the particular product will satisfy the needs and/or wants of the particular brand that the product falls within.

After the various brand considerations are developed in the multiple markets through which the product will be marketed in step 16, block 18 includes the steps of forming a consensus with respect to brand integration from the various multiple markets and refines the goal for the new product. Block 18 may also be directly input from multiple information inputs 12 as well. These multiple information inputs may be different in time from those acquired in the brand management process 14. In block 18, a voice of the customer (VOC) process is implemented for evaluating the multiple information inputs according to what is

perceived as desired wants and needs of customers of the particular brand.

In block 20, a marketing strategy document is developed using the various inputs from the previously described steps. The development and content of the marketing strategy document will be further described below.

The marketing strategy document 20 is used in block 22 in the vehicle design and development process. Thus, the vehicle design and development process may be influenced by the marketing strategy document 20. By providing information to the vehicle design and development process 22, items such as design, package standard features, optional features, color, trim, and pricing may all be used to influence the vehicle design. Because this process is implemented early, and it is updated during the development process, changes are less expensive to implement.

Referring now to Figure 2, a product brand positioning summary 30 is included as part of the marketing strategy documentation. This summary 30 is information about the vehicle with respect to the particular market to which it will be marketed. It can relate either to an entirely new vehicle, or carryover vehicle brand positioning information can be used. The brand positioning 30 is an executive level document created very early in the product development life cycle. Because it incorporates customer and brand information resulting from the market inquiry process 10, it is used to drive the brand profiler as detailed below.

The brand positioning summary 30 includes several distinct fields which define a brand or product under consideration. For example, field 32 identifies

the target customer defining characteristics. For this particular product under consideration, these characteristics include: a strong desire to experience the "real" outdoors, being highly motivated and driven for success, and, a need to escape from the stress/pressure of weekdays to family-oriented weekend activities in the great outdoors. Such defining characteristics are derived from the voice of the customer and brand integration process identified in steps 12-18 of Figure 1. The customer defining characteristics 32 are related to a rationale for selecting the target customer as shown in field 34. The selection rationale for such customers include: aspirational targets, a high interest in truck capabilities, strong interests in sport utility vehicles (SUV), and, consider the vehicle as a way of rewarding themselves.

The product under consideration is then positioned with respect to its role in the brand or corporate portfolio of products. This summary is shown in field 36. For example, the product under consideration is to be the "rugged adventure" leader of the Ford SUV lineup. The vehicle is also to support the Ford Division core SUV attributes of confidence, ruggedness, refined looks, and versatility. It also reinforces the Ford truck heritage of "built Ford tough" and contributes to the Ford Division positioning as the industry leader providing the broadest SUV lineup.

The product role in the portfolio 36 is then contrasted against a competitive assessment field 38 which identifies competitive products and corresponding attributes. By summarizing the competitive products and attributes in this field, the brand positioning

attributes of the product under development can be readily identified as competitive or uncompetitive.

Some of the reasons why the target customer might buy the product under consideration are summarized in field 40. For example, the target customer might buy the product under development because of its capability to master any environment in that it balances off road capability, ride, comfort, and maneuverability. Another reason may be the product's superior comfort through innovative interior versatility, ergonomics, and advanced technology. The rugged styling, which provides a statement of the customer's success and adventurous lifestyle may also have an enduring influence on the customer's purchase decision. Another reason a target customer may purchase the product is that it is environmentally responsible in that it has the lowest emissions and highest recyclability of any competing product.

Finally, field 42 summarizes the pricing considerations for the product brand under consideration. In this case, the pricing considerations to be taken into account include: the price of other Ford Division products, the price of competitive products, and the premium brand image which is desired for the product.

The format of the brand positioning summary is important because it succinctly summarizes key customer and product attributes. To provide maximum benefit, the format of the brand positioning summary should remain constant from product to product with only the content changing. Thus, for example, if a new sports car were being developed, the six categories would remain the same. The content of each category, obviously, would be very different, however.

Closely related to the brand position summary 30 is the brand bullseye 50 shown in Figure 3. The brand bullseye 50 visually organizes the brand positioning summary 30 of Figure 2 to provide the core brand image or attributes common to the three areas of image/personality 52, product/service 54, and price/value 56. In this case, the core brand attributes are "rugged adventure" and "confident capability."

10 The brand bullseye 50 is similar to the brand
positioning summary 30 in that it identifies similar
product 54 and purchase information 56 but omits much
of the customer characteristics (32, 34 of Figure 2).
Instead, the brand bullseye 50 provides additional
15 "color" to the new product by identifying attributes
relating to its image or personality 52.

Because the brand bullseye 50 is an executive summary document like the brand positioning summary 30, and the two are strongly related, they are preferably created at the same time in the product development life cycle. These documents are created once the following steps have occurred: a brand management team has been formed; brand analysis has been conducted; target customer selection, description and needs have been identified; brand benefits have been identified; and a brand personality has been created. The goal of including target customer information is to succinctly describe the intended customer group such that the product team can visualize this audience. The brand team must understand the customer's deep-seeded needs and articulate these needs better than the customer.

Similarly, the brand personality condenses the personality intangibles into a few words (2 to 3) that capture the emotional side of the brand's connection to

the customer. In addition, price considerations appear on the brand positioning summary 30 and brand bullseye 50. Pricing considerations identify the net transaction price range, and state the price position relative to the key competition. This is stated as either higher, lower, or on parity with the competition. Once these steps have been completed, the brand positioning summary 30 and brand bullseye 50 are created to link the foregoing information in a way that clearly and simply articulates what the brand is all about.

Figures 4A through 4D show an example of a brand profile for a personal use vehicle. The brand profiler 60 includes several columns of information to be identified, ranked, and targeted as an objective for the product under consideration. The form itself is used to drive the VOC process and brand integration process into the new product.

The first column of the brand profiler 60 identifies the product attributes 62. Each attribute 62 is an identifiable feature of the generic product under consideration which in this case is an automotive vehicle for personal use. These attributes do not change. Thus, all new personal use vehicle brand profiles will have the same attribute list. The attributes are grouped according to the potential vehicle usage, the driving experience, environmental impact, including the occupant environment, vehicle design, special attributes for this particular vehicle, and other goals identified by customer-oriented market research which may be important attributes for the vehicle under consideration. Of course, if the product under development were something other than a personal

use vehicle - a washing machine, for example - the attributes would be different.

In this example, vehicle usage attributes include: interior roominess, ergonomics/flexibility/comfort, luggage/cargo space, durability/craftsmanship, 5 quietness, ease of entry/exit, range/fuel economy, climate control, exterior visibility, and cost of ownership.

Driving experience includes such things as:
10 performance/towing, ride, handling, braking, steering,
transmission performance, and maneuverability.

Environmental attributes for personal use vehicles include: occupant safety, occupant security, emissions, recyclability, and the use of alternate fuels/fluids.

Special features or other important attributes for, in this case, a SUV may include: the level of innovation, luxury considerations, entertainment, the ability to fit the vehicle in a typical garage, and the vehicle's ability to support the corporate safety image.

The design attributes (Figure 4C) of the vehicle are summarized as a series of descriptive adjectives: sporty, youthful, expressive, family, conservative, basic, substantial, tough, prestigious, elegant, and luxurious.

Each of the attributes 62 is placed in an attribute class 64 and given a priority or rank 66. These columns 64, 66 are initially blank and are filled in as part of the product development process described below. Figure 4A shows the columns 64, 66 as they would appear for a completed brand profiler 60.

The attribute classes 64 comprise three groupings: D, I, and G. Group D represents a brand or product "differentiator." These are attributes which are considered extremely important to differentiate the brand from competitive brands or products. In other words, it is the basis on which the brand's personality is built. Group I are considered "important" brand benefits. These are attributes which are considered an important part of the brand's personality but which do not necessarily differentiate the product from competitive products. Group G are attributes which are considered "given" or necessary for the product under consideration. These are attributes whose priorities are determined by the cost of entry. In other words, within the cost constraints for the proposed product, these attributes will be included and/or maximized. These attributes, however, are improvements which are not considered critical to support the brand's personality. A fourth attribute class may also be included as NA, which means that the attribute is "not applicable" to this brand or vehicle type.

The next column in the brand profiler 60 of Figure 4A is the priority or rank 66. A priority 66 typically correlates to the attribute class 64 and further prioritizes each attribute 62. Thus, as can be seen in Figure 4A for a completed brand profiler 60, attributes which are considered brand "differentiators" are given a higher priority than "important" attributes which, in turn, are given a higher priority than "given" attributes. In this example, "interior roominess" is the attribute assigned the highest priority, whereas the vehicle's use of "alternative fuels or fluids" is given the lowest priority. Note that these priority rankings 66 and attribute classes

64 strongly correlate to the brand positioning summary 30 (Figure 2) and brand bullseye 50 (Figure 3). As mentioned above, this is due to the fact that the brand positioning summary 30 and brand bullseye 50 drive the development of the profiler 60.

The next two columns on the brand profiler 60 are the primary brand positioning column 68 and the nameplate brand positioning column 70. In both of these columns, 68 and 70, the designators L, A, C, and M are used to relate the attribute 62 under consideration to the desired brand position 68, or product position 70. The primary brand positioning in column 68 represents, for example, "Ford," "Mercury" or "Lincoln"; whereas the nameplate brand positioning column 70 represents a specific product within that brand, such as the "Ford Expedition" or "Ford Explorer".

The primary brand positioning 68 is consistent for the given brand (i.e., Ford) and, therefore, the appropriate designators (i.e., L, A, C, M) are circled by the marketing personnel responsible for brand management. In contrast, the nameplate brand positioning 70, like the attribute class 64 and priority/rank 66, is completed as part of the brand profiling process described below. Throughout the brand profiler 60, the designator L represents leadership. These are attributes that should set the brand apart from other vehicles within the competitive set. These attributes represent the basis on which the brand's personality is built. Typically, such attributes would also be grouped as differentiators within the attribute class 64 and be considered attributes with high priority 66. Preferably, leadership attributes for the product under development

would be considered approximate 10 percent improvements over the competitive set. Thus, for example, if the attribute 62 "interior roominess" was designated as a leadership attribute, it should have approximately 10 percent more interior roominess than the competitive set.

The competitive set is comprised of competitor products that are used as current and future benchmarks against the vehicle under development. Various characteristics of a vehicle are chosen when determining a competitive set. Vehicles having "best in class" features for the attribute under consideration are typically chosen.

The designator A within the brand profiler 60 represents an attribute which must be "among the leaders" in the competitive set. These are attributes in which the brand must be as good as the best in the competitive set to support its positioning. These attributes may be considered as required to score in the top 25 percent of the competitive set.

Designator C in the brand profiler 60 represents "competitive" attributes. These are attributes in which the brand must be in line with the competitive set, but they are not considered critical to support the brand's personality. These are attributes which may be considered to rank in the top 25th to 75th percentile among the competitive set.

Designator M represents attributes to be given "minimal investment." These attributes are not considered relevant to supporting the brand and, if required at all, they should be met at the lowest possible cost.

The primary brand positioning column 58 and nameplate brand positioning column 70 represent ideal goals for the brand positioning of the product under development. Thus, for example, they represent the "Ford" primary brand and "Expedition" nameplate ideals, respectively, independent of constraints such as investment and engineering hurdles, and market changes such as new competitors or regulatory actions. They are customer-driven and strongly relate to the brand positioning summary 30 and brand bullseye 50. These columns are then related to the program specifics column 72, which is subdivided into a target/objectives column 74 and a status column 76.

Both the target/objectives column 74 and status column 76 include the L, A, C, M designators discussed above with respect to the brand positioning column 68, 70. Again, like the nameplate brand positioning column 68, the columns 74, 76 are completed as part of the brand profiling process.

The target/objectives column 74 represents tradeoffs necessary to achieve the desired nameplate brand positioning 70 for the current product under development. Thus, for example, the nameplate brand positioning may represent the ideal "Ford Expedition" SUV, but the target/objective 74 will represent only the "Ford Expedition" for model year 2001. The target/objective column 74 may or may not have the same descriptors (i.e. L, A, C, M) circled for each attribute as the nameplate brand positioning column 68 due to cost, time, or technology constraints. The process of identifying the target/objectives designator for each attribute 62 will be discussed in further detail below with reference to the brand profiling process. The status column 76 represents the progress

made towards achieving the target/objective for each attribute 62 during the product development cycle.

The present nameplate entry column 78 represents the attribute positioning for the existing product which the product under development is improving upon or replacing. Again, one designator selected from the set of L, A, C, U, is chosen for each attribute 62 and circled. Preferably, these entries are data driven as much as possible. In this case, the designator U represents an "uncompetitive" attribute.

It is analogous to the designator M (minimal investment) identified in the preceding columns 68-76 for the product under development. Since the present nameplate entry is already in existence, the designator U more accurately describes the attribute as uncompetitive, whereas for the product under development, the designator M more accurately represents attributes where few resources should be committed.

Alternatively, if no current brand exists, a target competitor can be recorded and profiled in the present nameplate column 78.

The last column of the brand profiler 60 is the detailed definition column 80. This column 80 provides a summary description of each attribute 62 to place the attribute 62 in a more proper context for the product under consideration. The detailed definition provides "texture" or "color" for the specific attribute. For example, for the driving experience attribute of "ride," the definition "a smooth ride on all surfaces and in all conditions" provides additional guidance to the product development team with respect to this attribute. For a truck or a passenger vehicle, this definition gives meaning to the attribute "ride."

In contrast - for a sports car - "ride" may be defined as "maximum responsiveness and driver feedback on all surfaces." The detailed definitions are developed as part of the brand profiling process which will be described in further detail below.

Figures 5A through 5C are part of the brand profiler 60 and complement the detailed definition column 80 for each attribute 62. As can be seen, a definition or clarification 82 for each attribute 62 is provided. These definitions 82 differ from the detailed definitions 80 in that they do not change for each product or brand under development, whereas the detailed definitions 80 may be modified for each new product. For instance, using the driving experience attribute of "ride," (Figure 5B) the definition 82 provides "how the vehicle drives over different surface conditions and terrain." As noted above, in contrast, the detailed definition 80 for the same attribute required "a smooth ride on all surfaces and in all conditions." Thus, the definition/clarification column 82 merely provides guidance in developing a detailed definition 80 for each attribute 62. Like the attributes 62, the detailed definitions 80 are provided as part of the brand profiler form 60.

Referring again to Figures 4C and 4D, a significant aspect of the brand profiler 60 is that the design attributes 84 are prioritized differently from the remaining attributes 62. As mentioned above, the design attributes comprise a group of styling descriptors. These include sporty, youthful, expressive, family, conservative, basic, substantial, tough, prestigious, elegant, and luxurious. Because design plays such an important role in durable goods purchases, and automotive vehicles in particular, the

design attributes are treated differently from, and provided with additional gradients of design image, than the remaining vehicle attributes.

In this example, each of the design descriptors 84 is given a priority value from low (1) to high (10). It follows in this case that the design descriptors 84 of "family" and "substantial" are given high priority since the attributes 62 of "interior roominess" and "luggage/cargo space" are given high priority and classified as an attribute differentiator for this particular vehicle. Similar to the other attributes, however, the design descriptors are provided with a detailed definition 80 to help place the descriptor and its corresponding priority in context for the particular vehicle under development. These definitions 80 give life to the design descriptors 84 to help focus the designers on the desired attribute.

Referring again to Figure 5C, each of the design descriptors 84 is also given a definition/clarification in the definition column 82. Thus, the definition/clarification for the design descriptor "family" reads "roomy, spacious, easy to use, safe/secure, non-aggressive, quiet, understated, universal. Relatively large passenger and cargo areas, functional and safe looking design elements." Examples of existing products considered to fit this definition/clarification may also be included in the definitions column 82. Examples for the design descriptor "family" may include such vehicles as the Ford Windstar or Mercury Villager minivans.

Figures 6A-6C and 7A-7C show other examples of a brand profiler 90 and corresponding definition and clarification table 92 for a commercial vehicle. The

align consumer dominant needs to the product development by reviewing and agreeing upon the initial brand profiler and prioritizing vehicle attributes and design images.

5 The use of the brand profiler 60 to achieve customer driven product development, i.e., the brand profiling process, will now be described with reference to Figure 4A. The brand profiler 60 is a tool used to expand the nameplate brand positioning summary 30.

10 This tool enables marketing personnel to articulate, specifically and consistently to the product development team, the profile of product attributes required to support the nameplate brand positioning and to reconcile this within time, budget and regulatory

15 constraints. The brand profiler 60 is specially designed to act as the focus for a conversation among a cross-functional product team (CFPT) as is described below. The first iteration of the profiler represents the ideal product attribute configuration to support

20 the brand positioning in the market place. The brand profiler 60 will then highlight any movement away from the ideal positioning which occurs as part of the trade-off process during the program. This tool provides a process check to ensure that the brand

25 positioning can be supported by the program.

 The use of the brand profiler 60 is driven by the brand positioning summary 30 and brand bullseye 50 which are developed earlier in the product development cycle. The brand positioning summary 30 and brand

30 bullseye 50 are high level documents created very early in the product development cycle as an executive summary of key customer and brand attributes for the new product. Given the brand positioning summary 30 and brand bullseye 50, the primary brand positioning column

68 of the brand profiler 60 is completed by the marketing division responsible for brand development within the organization. In other words, the brand profiler 60 initially comprises only the attributes 62 and a corresponding primary brand positioning designator such as L, A, C, or M. If a present nameplate entry exists for the new product, the present nameplate entry column 78 is also completed by circling an appropriate attribute designator.

10 Using the brand bullseye 50 and brand positioning summary 30 as product development catalysts, a cross-functional product team (CFPT) completes the attribute class column 64, priority column 66, nameplate brand positioning column 70, 15 target/objectives column 74, the status column 76, and the detailed definition column 80. The cross-functional product team preferably consists of at least one member from each of vehicle program management, marketing, purchasing, finance, engineering, and 20 design. For example, a CFPT may include the engineering manager, product manager, a design representative, purchasing personnel, a finance representative, and marketing personnel. Marketing personnel would preferably include employees 25 responsible for marketing plans, brand development, advertising, and market research.

 The profiling process is completed by making trade-offs in terms of prioritizing each attribute to meet the customer needs/wants/desires within time, 30 technology, and budgetary constraints, and government regulations. The process of achieving agreement on the target/objectives column 74 is an important part of the brand profiler process. These targets/objectives, which are based on customer needs and wants, drive the

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program product decisions. To achieve agreement, it is helpful that key decision makers from each of the groups identified in the CFPT participate. These participants should be well-prepared and have a
5 detailed understanding of the brand positioning summary 30, brand bullseye 50 and target customer.

Starting with the attribute class 64, the CFPT must delineate these unique, enduring qualities that will set the brand apart from the competition
10 (differentiators) and those attributes required to compete within the product segment (givens). The class column 64 aids the CFPT in completing the priority ranking 66.

Assuming the primary brand and ideal
15 nameplate brand columns 68, 70 are completed, the CFPT agrees on target/objectives based on the positioning of the current product entry 78 and the hurdles which must be overcome to achieve the ideal nameplate brand 70.

The detailed definition column 80 is used to capture
20 the interpretation of the attribute in customer terms.

Most customers want their vehicles to handle well, but the interpretation is different for a large luxury vehicle and a small sports car. Once the brand profiler has been completed, it is used to give the product
25 development team direction and drives the development of the engineering specifications for the new product.

While the invention has been described in connection with one or more embodiments, it is to be understood that the specific mechanisms and techniques
30 which have been described are merely illustrative of the principles of the invention. Numerous modifications may be made to the methods described without departing from the spirit and scope of the invention as defined by the appended claims.